# Problem Set - 5

## Introduction

Welcome to the 5th problem set of ML001! In this problem set you will find some problems to do by yourself.
This problem set will test your skills based on section-Decision Trees, so I highly recommend you to first watch the section and then start with this assignment.

Problems

1.) Write about Bias and Variance Tradeoff.
2.) Make a decision Tree using the below dataset. You have to make it manually, you have to use information measures to choose the attribute.

| toothed | hair | breathes | legs | species |
|---------|-------|----------|-------|---------|
| TRUE | TRUE | TRUE | TRUE | mammal |
| TRUE | TRUE | TRUE | TRUE | mammal |
| TRUE | FALSE | TRUE | FALSE | reptile |
| FALSE | TRUE | TRUE | TRUE | mammal |
| TRUE | TRUE | TRUE | TRUE | mammal |
| TRUE | TRUE | TRUE | TRUE | mammal |
| TRUE | FALSE | FALSE | FALSE | reptile |
| TRUE | FALSE | TRUE | FALSE | reptile |
| TRUE | FALSE | TRUE | TRUE | mammal |
| FALSE | FALSE | TRUE | TRUE | reptile |

3.) Make a DT model using Iris dataset

Submission Guidelines:-

You have to submit it through our official discord server and forms are provided on the course website to submit your problem set and you can discuss your answers in the discord community.